

- 1. Lens board frame
- 2. Front frame
- 3. Bellows tack (8P8-635)
- 4. Tacking strip

- 5. Yarn
- 6. Body
- 7. Bellows
- 8. Screw (8P8-415)

Figure 6. Bellows (8P8-45)

A-14. Yoke guide screw (BPB-530)

A-145. Bed-brace plate

A-147. Screw

A-302. Focusing shaft spring

A-303. Yoke lock lever

A-304. Screw

A-306. Infinity stop

A-307. Yoke guide screw bushing

A-308. Right yoke guide (BPB-205)

A-309. Left yoke guide (BPB-200)

A-311. Right bed block (BPB-55A)

A-312. Left bed block (BPB-55)

A-313. Machine screw

A-314. Bed-brace spring

A-315. Plunger

A-316. Focusing pinion rod (BPB-295)

A-317. Washer

A-322. Body yoke guide

A-323. Body yoke guide

A-324. Bed and hinge assembly

A-328. Bed brace (BPB-60A)

A-331. Bed brace (BPB-60)

A-335. Rangefinder arm bracket rivet

A-336. Yoke link

A-337. Yoke link pin

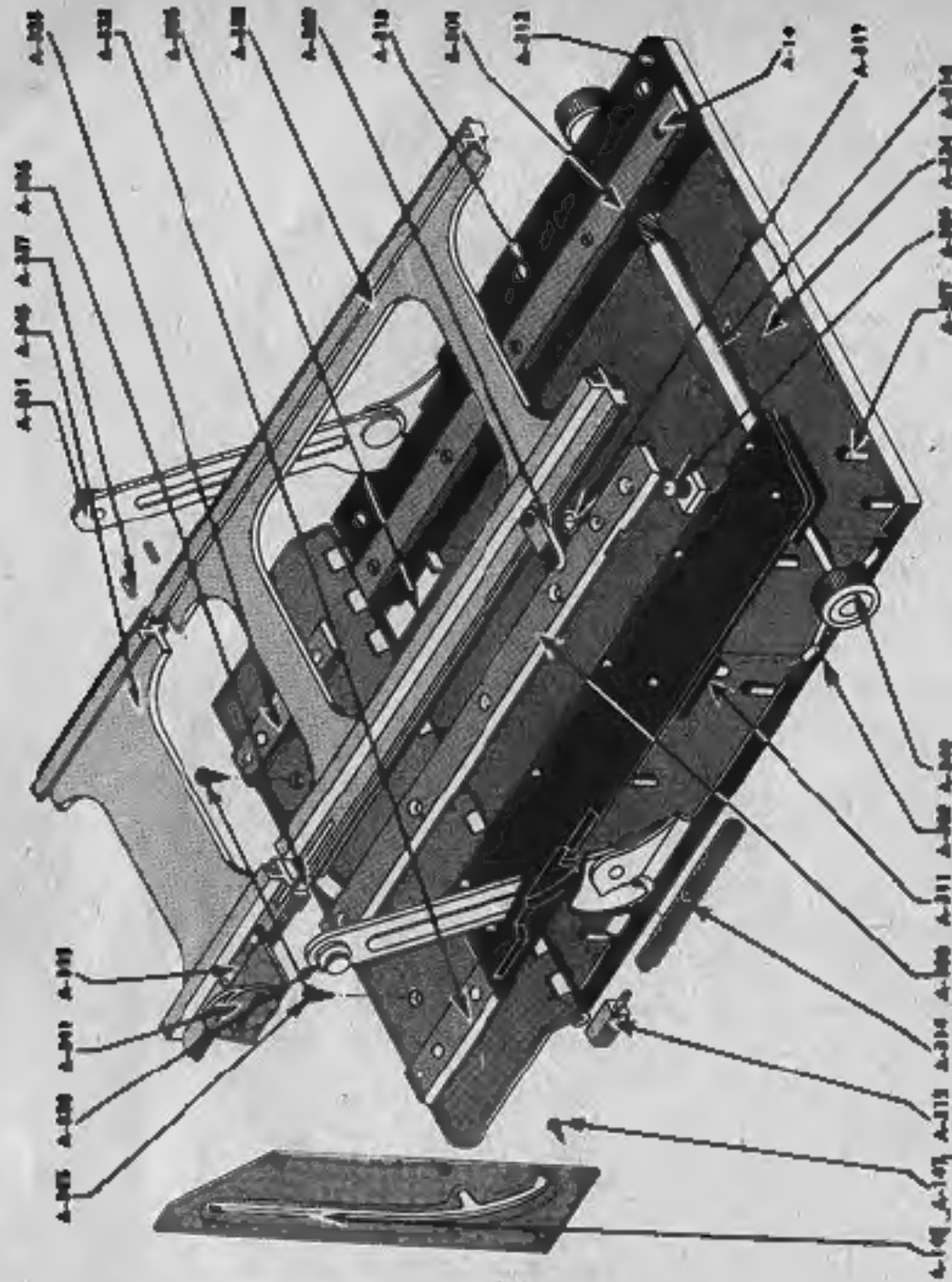
A-338. Bed yoke

A-341. Bracket assembly

A-343. Body yoke

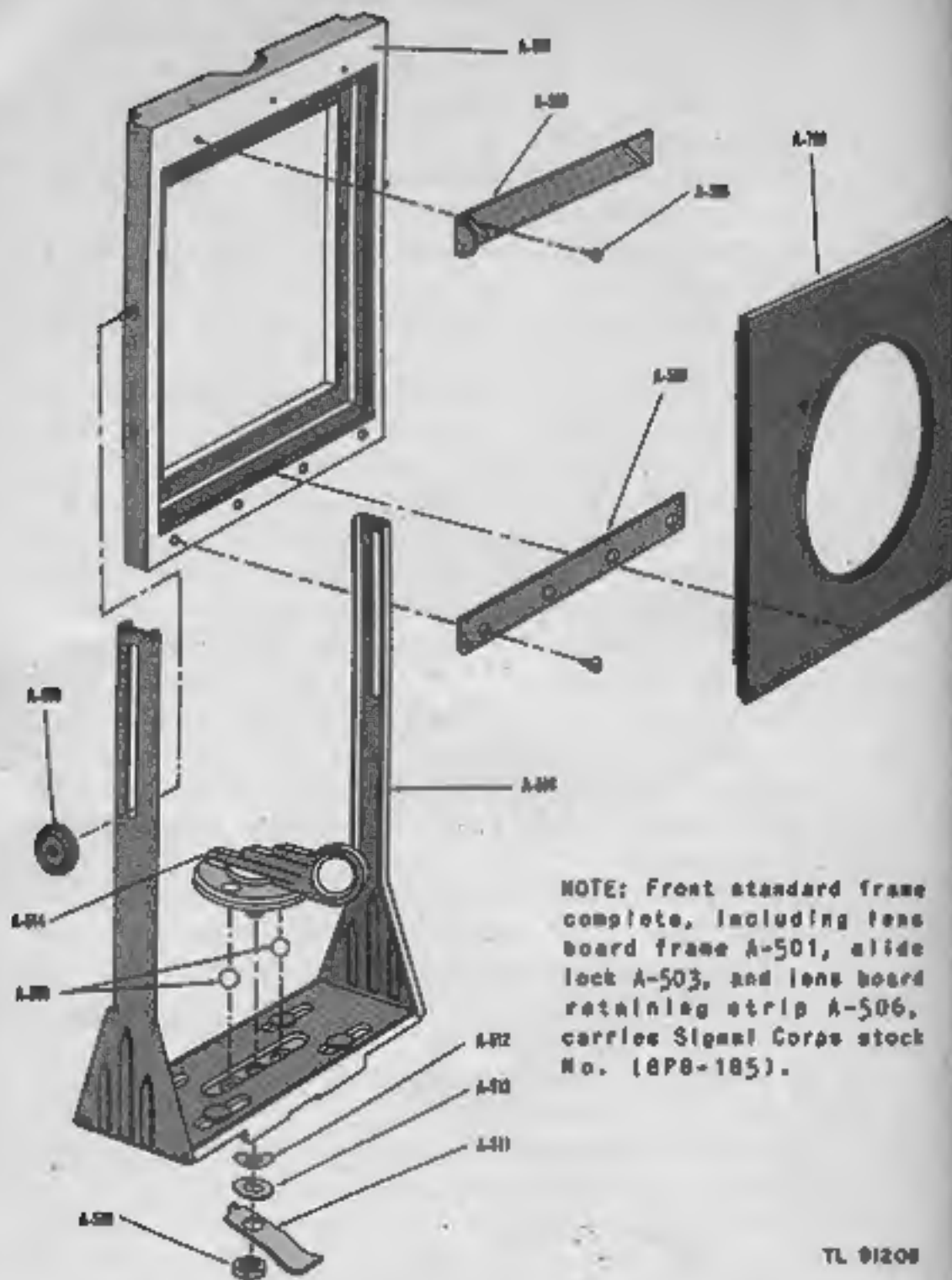
A-349. Focusing knob

A-365. Wood screw



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Figure 36. Bed (BPB-40) and yoke (BPB-60) mechanism



NOTE: Front standard frame complete, including lens board frame A-501, slide lock A-503, and lens board retaining strip A-506, carries Signal Corps stock No. (8P8-185).

TL 91208

- A-501. Lens board frame
- A-503. Slide lock (8P8-268)
- A-505. Slide lock screw
- A-506. Retaining strip
- A-509. Lock balls
- A-510. Locknut
- A-511. Spring catch

- A-512. Front standard spring washer
- A-513. Front standard flat washer
- A-514. Front lock lever
- A-518. Front standard assembly (8P8-605)
- A-536. Rising front locking nut
- A-708. Lens board (8P8-6251)

Figure 52. Camera front, exploded view

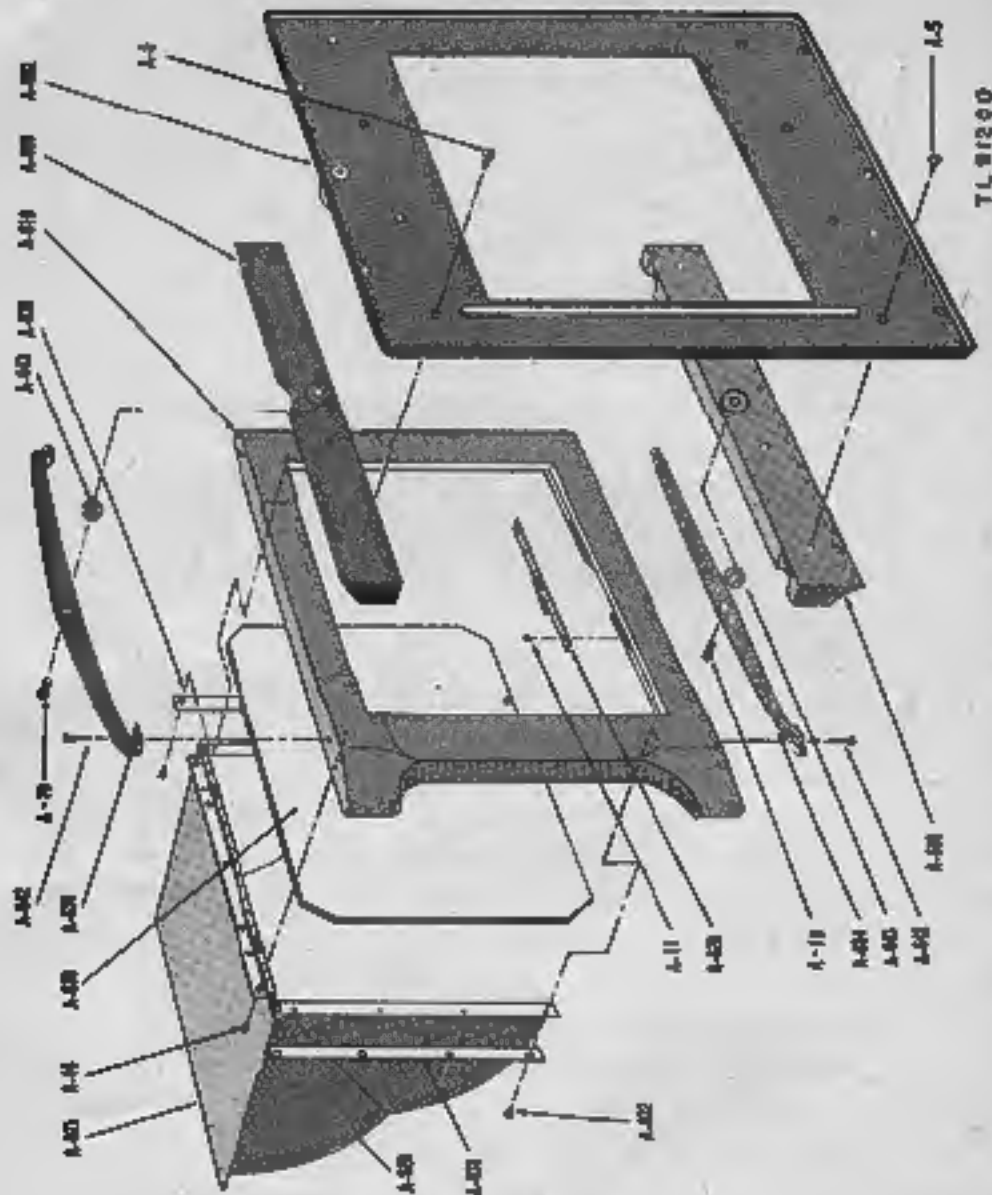
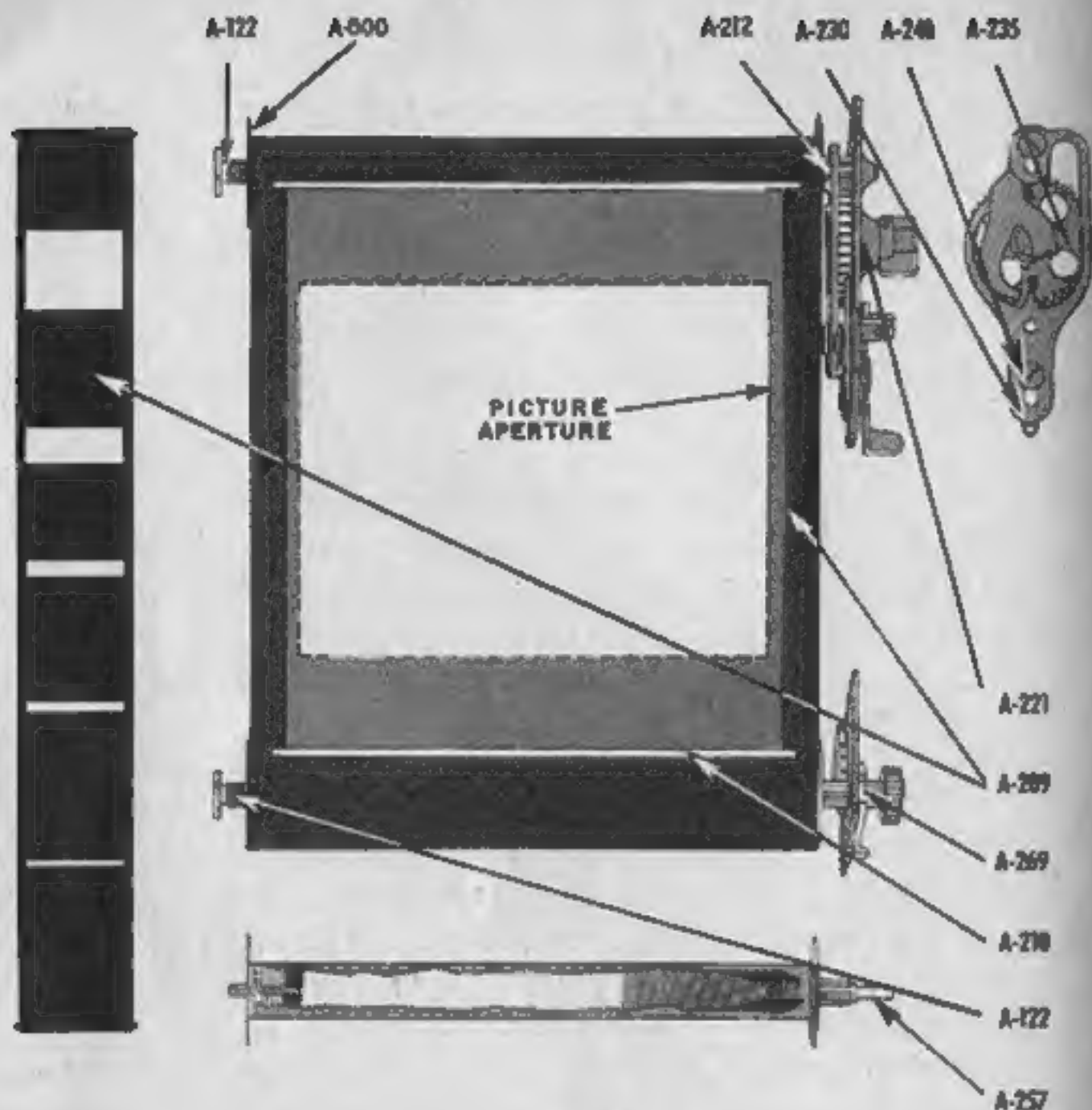


Figure 53. Camera back (8PA-13), exploded view

- A-3. Screw
- A-10. Screw
- A-11. Screw
- A-16. Screw
- A-19. Screw
- A-602. Back panel
- A-607. Back top molding
- A-610. Back bottom molding
- A-616. Focusing frame
- A-621. Focusing-screen cover
- A-628. Light shields
- A-629. Focusing-panel catch
- A-630. Ground glass
- A-631. Ground-glass retaining strip
- A-632. Screw
- A-634. Screen spring
- A-638. Screen spring
- A-642. Focusing-frame spring screw
- A-643. Focusing-frame spring washer

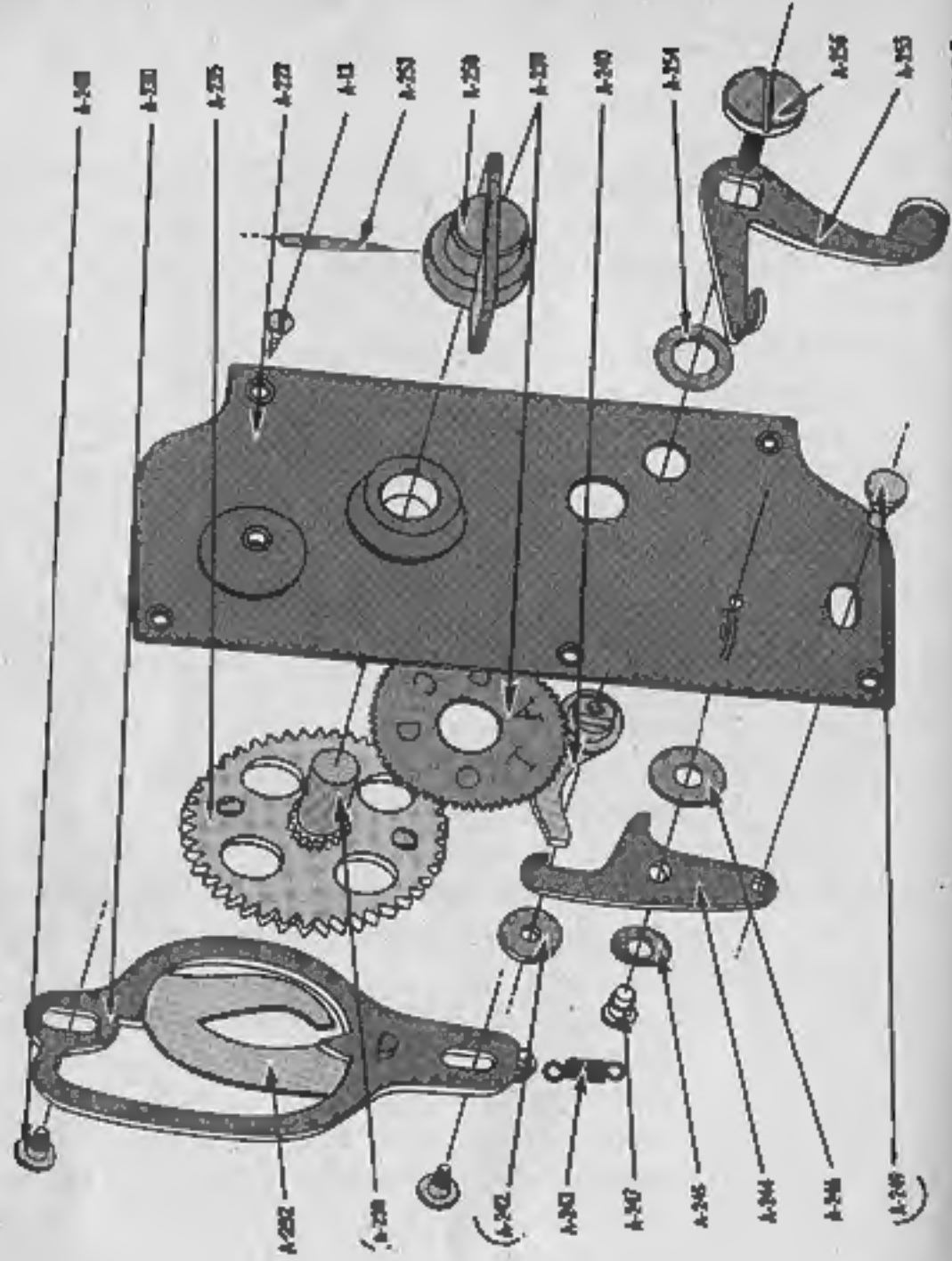


TL92921

A-122. Curtain roller bearing
 A-209. Shutter curtain
 A-210. Curtain edging slit
 A-212. Top gear roller assembly
 A-221. Shutter plate
 A-800. Upper shutter roller

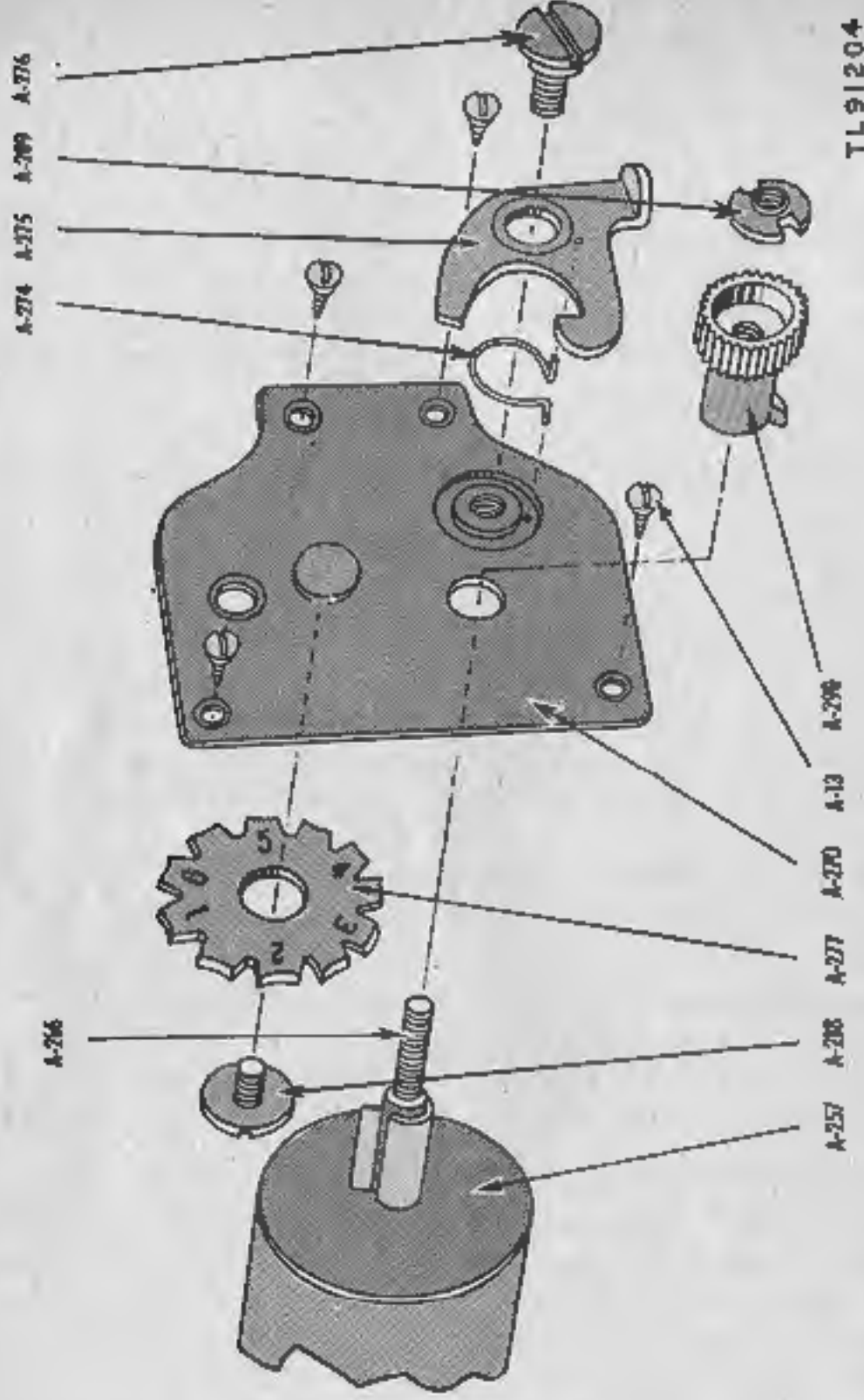
A-230. Escapement
 A-235. Master gear
 A-248. Screw
 A-257. Bottom tension roller assembly
 A-269. Tension plate

Figure 54. Focal plane shutter mechanism (8PB-125)



- A-13. Screw (RP8-500)
- A-222. Shutter plate (RP8-333)
- A-230. Escapement (RP8-140)
- A-232. Curtain brake
- A-235. Master gear
- A-238. Master gear stem
- A-239. Indicator gear
- A-240. Escapement lever
- A-242. Locknut
- A-243. Spring (RP8-575)
- A-244. Shutter latch lock
- A-245. Escapement spring washer
- A-246. Lock washer
- A-247. Shutter lock latch stud
- A-248. Screw
- A-249. Shutter lock latch
- A-250. Shutter winding key (RP8-225)
- A-253. Taper pin (RP8-300)
- A-254. Spacer washer (RP8-665)
- A-255. Shutter-release lever (RP8-255)
- A-256. Release lever screw

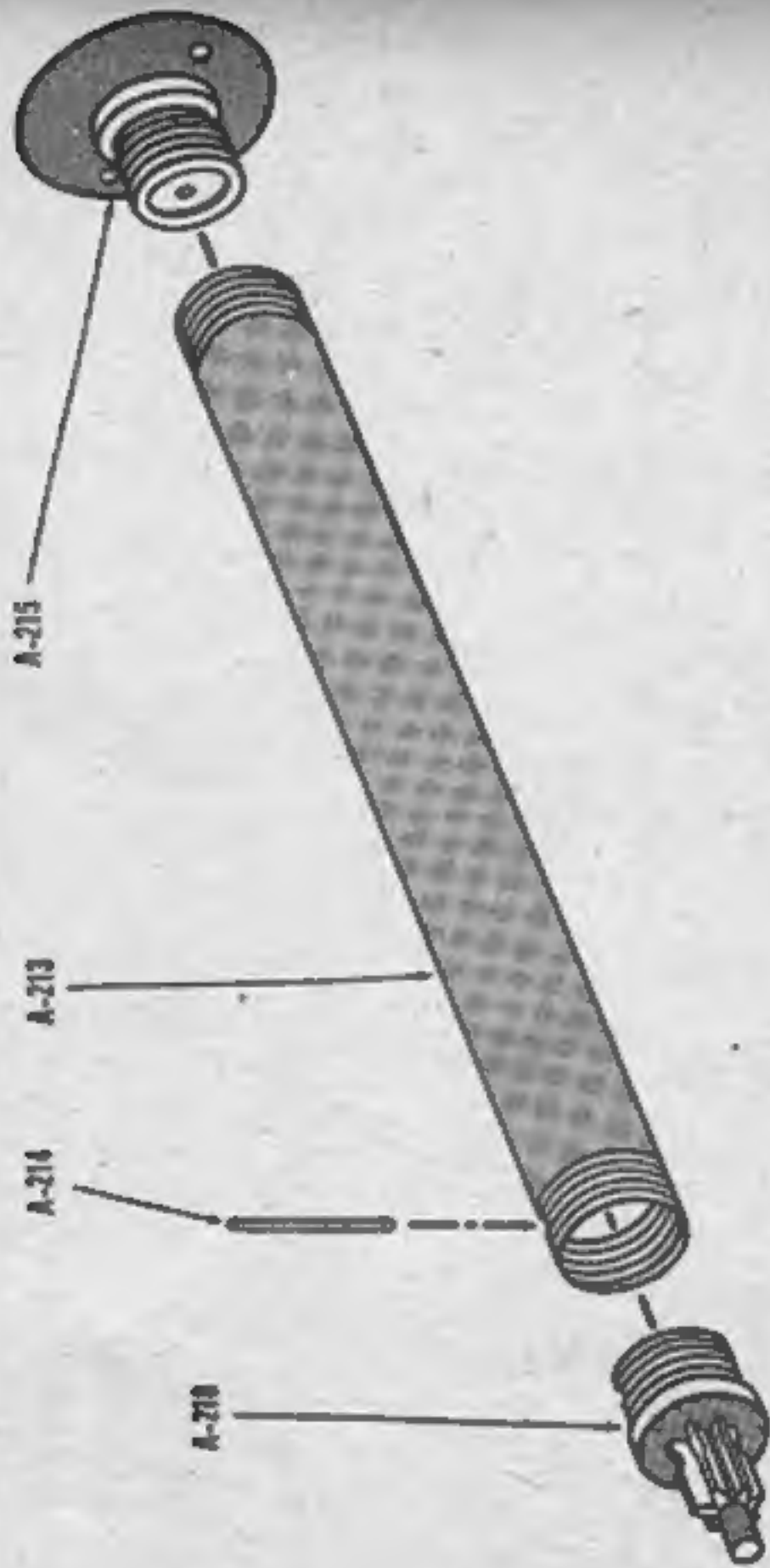
Figure 35. Curtain-releasing mechanism



- A-13. Screw
- A-257. Bottom tension roller assembly
- A-266. Roller rod
- A-270. Plate (8P8-340)
- A-274. Dog spring (8P8-600)
- A-275. Release dog
- A-276. Screw (8P8-490)
- A-277. Indicator gear
- A-288. Screw (8P8-495)
- A-289. Locknut (8P8-285)
- A-290. Snail (8P8-555)

Figure 56. Tension-setting mechanism

TL91204

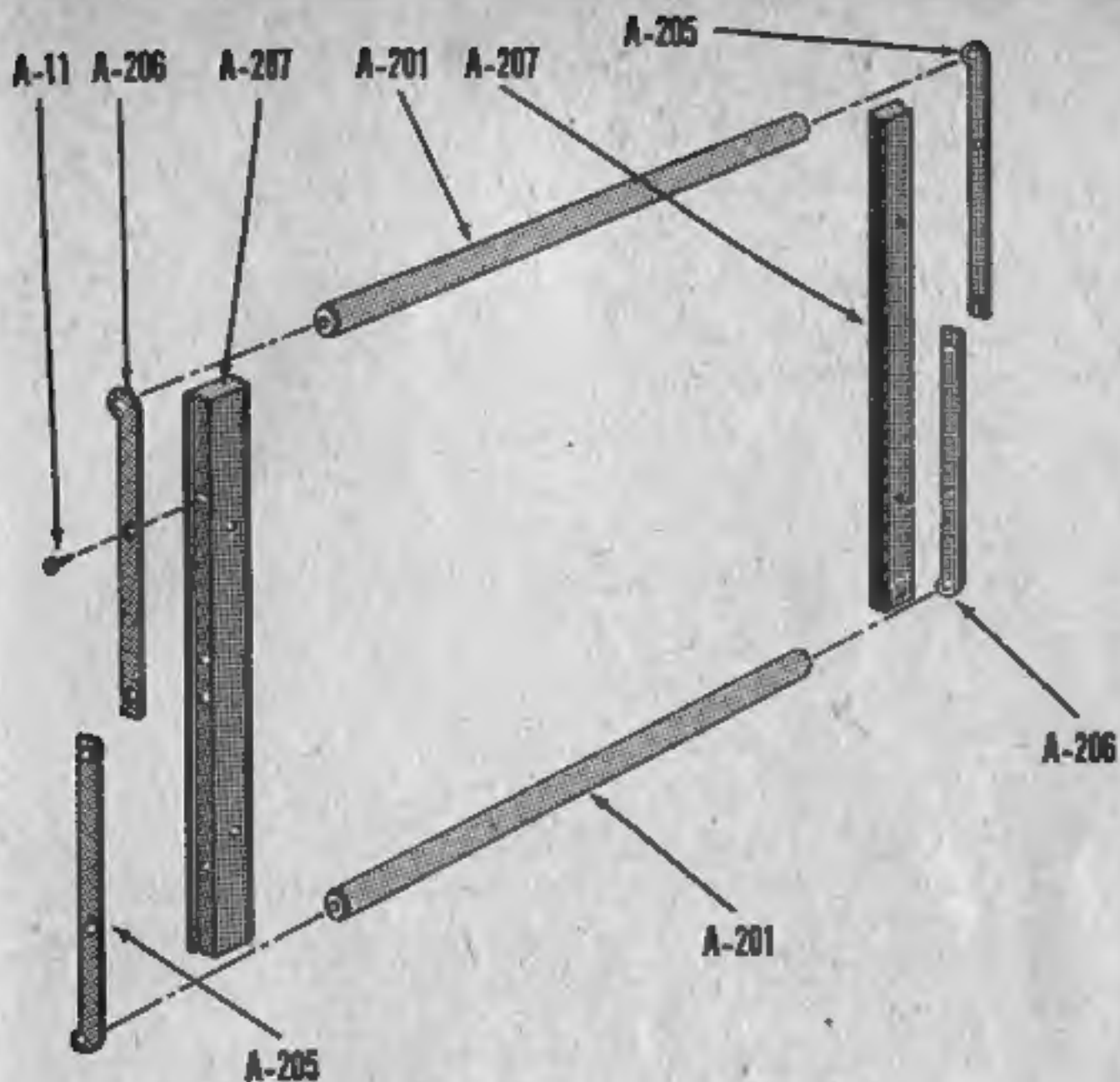


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A-215. Bushing assembly
A-218. Pinion assembly

A-213. Tube
A-214. Pin

Figure 58. Upper shutter roller mechanism (8P8-190)



TL 91207

A-11. Strip screw

A-201. Idler

A-205. Top right and lower left idler strips

A-206. Top left and lower right idler strips

A-207. Idler block

Figure 39. Idler block assembly (8PB-220)

APPENDIX

SECTION XI

MAINTENANCE PARTS LISTS

B4. MAINTENANCE PARTS LIST FOR CAMERA EQUIPMENT PH-104.

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Run-ning spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
Fig. 26	8A10A	ADAPTER: film pack, metal, 4 x 5", complete with slide graphic, all metal or equal. (See list for Adapter PH-110-A, paragraph 93.)	1						
Fig. 2	8A3273-308	CABLE RELEASE: Folmer Graflex; PH-308; 73/4" lg; film super-matic #2 shutter.	1		*		**	**	*
Fig. 3	8A347E	CAMERA: Folmer Graflex; PH-47E; 4" x 5" speed graphic; w/127mm Ektar lens.							
Fig. 2	8A521D	CASE: camera carrying Folmer Graflex; PH-83-D; compartment type; size about 19 1/4" x 1 1/2"; fiber material. (See list for Case PH-83-D, paragraph 93.)							
Fig. 2	8A831A	CLOTH: focusing; EKCo; 40" x 48"; bound at all edges.	1				**	**	*
Fig. 2	8PH-110 F	CORD: extension: Folmer Graflex catalog #150; 15 ft lg w/ molded peanos size female right angle connectors at both ends; w/ standard female receptacle.	1		*		**	**	*
Fig. 2	8A1099/x1-2	FILTER: Wratten X-1, 1 1/2" diam, in B glass (Kodak Series VI or equal).	1				**	**	*
Fig. 2	8A1099/2-2	FILTER: Wratten K-2, 1 1/2" diam, in B glass (Kodak Series VI or equal).	1				**	**	*
Fig. 2	8A1099/G-2	FILTER: EKCo; Wratten G; Kodak Series VI; EKCo or equal.	1				**	**	*
Fig. 2	8A1100-180	FILTER: PH-380 (Wratten Aero 2, Eastman Kodak Co., 4" square, in B glass; used to vary social relationship in the photography of colored objects; u/w but not part of PH-120A and PH-195A).	1				**	**	*
Fig. 17	8A1700	HOLDER: cut film: Folmer Graflex; PH-81; 4" x 5"; wooden construction; w/ opaque dark side; complete w/ separate graphic type.	6						
Fig. 18	8A2576A	LENS HOOD: and filter holder; EKCo Series VI; PH-106A; includes 1 1/4" Kodak adapter ring and Kodak lens hood.	1				**	**	*
Fig. 11	8PH-538	LIGHTING UNIT: side.	1		*		**	**	*
Fig. 24	8A3698.3	SYNCHRONIZER: flash, Graflex #37 (metal battery case w/ 7" adjustable reflector for standard base bulbs; used with supermatic shutter on Camera PH-47E).							
Fig. 14	8A4121	TRIPOD PH-121: (overall dimes 4" diam by 16 1/4" lg; Crowa #1, or equal).	1						

*Indicates stock available.

**Indicates that parts may be requisitioned as needed for depot stocks.

85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E.

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Run-ning spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
Fig. 36	8PB-25	BEARING: roller.	2			**	**	*	
Fig. 6	8PB-40	BED: complete.	1		*	**	**	*	
Fig. 30	8PB-45	BELLOWS: complete, interior-black, exterior-black leather.	1			**	**	*	
(A-312)	8PB-55	BLOCK: bed, left, bakelite, black, moulded.	1		*	**	**	*	
Fig. 36	8PB-55A	BLOCK: bed, right, bakelite, black, moulded.	1		*	**	**	*	
(A-311)	8PB-60	BRACE: bed, left.	1			**	**	*	
Fig. 36	8PB-6A	BRACE: bed, right.	1			**	**	*	
(A-311)	8PB-75	CATCH: focusing panel.	1			**	**	*	
Fig. 54	8PB-125	CURTAIN: assembly, focal plane shutter, with struts.	1			**	**	*	
Fig. 36	8PB-490	DOG: tension, brass; used as stop for tension screw.	1			**	**	*	
(A-275)	8PB-140	ESCAPEMENT: shutter.	1			**	**	*	
Fig. 55	8PB-155	FEET: rubber, for bottom of camera case.	4			**	**	*	
(A-230)	8PB-165	FINDER ASSEMBLY: wire (for swinging peep sight).	1		*	**	**	*	
Fig. 9	8PB-175	FRABLE: complete, focusing: with strips, catch and ground glass.	1			**	**	*	
Fig. 51	8PB-52	FRAME: complete, front standard, with slide lock and lens board strip.	1			**	**	*	

Fig. 24	SA1698.3	FLASHGUN: and Synchronizer Graflex #37. (See list for Folmer Graflex Flashgun, paragraph 91.)	1						
Fig. 36	8PB-200	GUIDE: bed yoke, left.	1			**	**	*	
(A-322)	8PB-205	GUIDE: bed yoke, right.	1			**	**	*	
Fig. 36	8PB-210	HANDLE: carrying, leather; with ring and pad.	1			**	**	*	
(A-323)	8PB-215	HOUSING: tubular viewfinder, bakelite, black, moulded.	1		*	**	**	*	
Fig. 5	8PB-220	IDLER ASSEMBLY: with idler pin.	2			**	**	*	
Fig. 55	8PB-225	KEY: shutter winding.	1		*	**	**	*	
(A-250)	8PB-255	LEVER: shutter release.	1		*	**	**	*	
Fig. 35	8PB-260	LEVER: yoke lock.	1			**	**	*	
(A-255)	8PB-265	LOCK: lensboard slide, for locking lensboard in place; SAE #1010ER steel, .040 inch thick with two diagonal slots $3\frac{1}{2}$ " lg x $\frac{1}{4}$ " w length.	1			**	**	*	
Fig. 3	8PB-270	MASK: viewfinder, removable.	1			**	**	*	
Fig. 11	8PB-280	NUT: raising front screw, for raising front frame.	2		*	**	**	*	
(7)	8PB-285	NUT: tension.	3		*	**	**	*	
Fig. 5	8PB-300	PIN: taper; winding key.	1		*	**	**	*	
Fig. 55	8PB-295	PINION ASSEMBLY: focusing, complete with knobs.	1			**	**	*	
(A-255)									
Fig. 36									

*Indicates stock available.

**Indicates that parts may be requisitioned as needed from depot stocks.

85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E (CONTD).

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Run- ning spare	Orgn stock	3d ech	4th ech	5th ech	Depot stock
Fig. 23	8P8-310	PLATE: aperture.	1				**	**	*
Fig. 68	8P8-315	PLATE: brace, left side.	1				**	**	*
Fig. 68	8P8-315A	PLATE: brace, right side.	1				**	**	*
	8P8-320	PLATE: handle.	1				**	**	*
Fig. 55 (A-222)	8P8-335	PLATE: shutter, complete.	1				**	**	*
Fig. 36	8P8-340	PLATE: tension, complete.	1				**	**	*
Fig. 65	8P8-345	RANGEFINDER: Hugo Meyer #4C. (See list for Hugo Meyer rangefinder (Model 4C), paragraph 90.)	1						
Fig. 37	8P8-360	ROLLER ASSEMBLY: tension.	1				**	**	*
Fig. 38	8P8-190	ROLLER ASSEMBLY: upper shutter.	1				**	**	*
Fig. 68	8P8-365	SCREW: back frame.	5				**	**	*
Fig. 68	8P8-370	SCREW: back spring.	2				**	**	*
	8P8-375	SCREW: back to case.	5				**	**	*
	8P8-380	SCREW: bed catch, handle catch and spring.	2				**	**	*
	8P8-400	SCREW: focusing frame catch, idler block strip.	4				**	**	*
	8P8-410	SCREW: foot.	4				**	**	*
Fig. 6 (8)	8P8-415	SCREW: front bellows.	4				**	**	*
	8P8-435	SCREW: handle lug or side plate.	2				**	**	*
	8P8-440	SCREW: hinge, focusing frame.	4				**	**	*
	8P8-445	SCREW: idler block.	4				**	**	*
	8P8-450	SCREW: lensboard slide lock 1-56 x $\frac{1}{8}$ inch F.H.-M.T.	2				**	**	*
	8P8-455	SCREW: lensboard retaining strip $\frac{1}{8}$ inch #2 O.H. Parker Kalon Type Z.	2				**	**	*

Fig. 11	8P8-460	SCREW: viewfinder housing to base $\frac{1}{4}$ inch #3 R.H. Wood.	3				**	**	*
Fig. 68	8P8-470	SCREW: peep sight (sawing type).	3				**	**	*
Fig. 55 (A-948)	8P8-480	SCREW: shutter escapement.	2				**	**	*
Fig. 35 (A-256)	8P8-485	SCREW: shutter release lever.	1				**	**	*
Fig. 56 (A-276)	8P8-490	SCREW: tension dog, 2-56 R.H.-T.M.	1				**	**	*
Fig. 56 (A-288)	8P8-495	SCREW: tension indicator.	1				**	**	*
Fig. 55 (A-13)	8P8-500	SCREW: tension or shutter plate.	10				**	**	*
Fig. 36 (A-304)	8P8-530	SCREW: yoke guide.	10				**	**	*
	8P8-535	SCREW: yoke lock, 8-40 x $\frac{1}{4}$ inch.	1				**	**	*
Fig. 36 (A-313)	6L6256-3.2	SCREW: bed block, 2-56 x $\frac{1}{4}$ inch brass, O.H.	6				**	**	*
Fig. 68	6L6348-6.1	SCREW: handle catch, brass 3-48 x $\frac{3}{4}$ inch R.H.	2				**	**	*
Fig. 11 (8)	6L6256-3.1	SCREW: viewfinder cap, brass 2-56 x $\frac{1}{4}$ inch R.H.	2				**	**	*
Fig. 60	8A-3651	SHUTTER: Supermatic #2 FG#69939. (See list for Supermatic Shutter, paragraph 88.)	1						
Fig. 9 (4)	8P8-540A	SIGHT: prcp. sawing type.	1		*		**	**	*
Fig. 56 (A-290)	8P8-555	SNAIL: tension plate.	1				**	**	*
Fig. 55 (A-243)	8P8-575	SPRING: escapement.	1				**	**	*

*Indicates stock available.

**Indicates that parts may be requisitioned as needed from depot stocks.

85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E (CONTD).

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Run-ning spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
Fig. 36 (A-274)	8P8-585	SPRING: handle catch; leaf type.	1				**	**	*
	8P8-590	SPRING: screen bottom.	1						
	8P8-590A	SPRING: screen, top.	1				**	**	*
	8P8-600	SPRING: tension dog.	1						
Fig. 52 (A-518)	8P8-605	STANDARD: front.	1		*		**	**	*
Fig. 23	8P8-640	TACKS: aperture plate, round-head.					**	**	*
Fig. 6 (3)	8P8-635	TACKS: 1/4 inch Ø21 bellows, flat-head.					**	**	*
Fig. 55 (A-254)	8P8-665	WASHER: escapement lever.	1				**	**	*
Fig. 36	8P8-685	YOKE: complete.	1				**	**	*
Fig. 9 (17)	8A-1201	GLASS: ground; 4" x 3", for Ground Glass Focusing.	1		*		**	**	*

*Indicates stock available.

**Indicates that parts may be requisitioned as needed for depot stocks.